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Art. I.—CASE OF CATALEPSY IN THE PARTURIENT FEMALE.

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E. E. æt. 20—rather below the ordinary height, of good constitution, and a sanguineo-nervous temperament, was taken in labour with her third child, on the 19th of February. About a month previous to this time, upon experiencing some slight pains, resembling labour pains, a physician was sent for, who—after making the requisite examination *per vaginam*, and the pains becoming less frequent, and not so severe as when he arrived—ordered an anodyne injection and perfect rest; by which means the patient was soon enabled to go about the wards, although now and then complaining of transient pains, which, however, were not of a character sufficiently severe to require medical attention.

In the condition above mentioned, the patient remained until the date previously named, when I was called in. The pains, though slight, were regular in their returns, at intervals of 20 minutes. Upon making an examination *per vaginam*, the os uteri was very slightly dilated, though flabby and dilatable, and the neck of the womb appeared to the touch not sufficiently developed for the full time of utero-gestation. The labour advanced slowly though perfectly natural, until about 12 o'clock on the 20th, when I was summoned, in great haste, and found the patient labouring under a fit, in some respects strongly resembling catalepsy. The mouth was widely open, the neck and head thrown back, and the eyes, at first, firmly fixed upwards and backwards in the sockets, but afterwards rolling about in every direction, the patient being unable to fix them upon any object. The respiration and the pulse were perfectly natural, and the skin moist and healthy. The upper extremities, for a short time, could be placed in any position, the patient being unable to govern them. The lower extremities were not in the slightest degree affected. The consciousness of the woman remained perfect throughout, and when requested to exert herself in any manner, she attempted to do it, but in vain. During this interval of the fits she complained of heaviness about her head with tinnitus and giddiness.

I immediately opened a vein and took about 10 ozs. of blood, when it ceased flowing; applied sinapisms to the back of the neck and ears, and leeches to the temples; prescribed anodyne injections and foot-bath, and rubbed her throat with a stimulating liniment, deglutition being entirely suspended. Notwithstanding the remedies used, the fits continually recurred

with every contraction of the uterus, which contractions were, however, now at longer intervals. At this time, I made a re-examination of the os uteri, but found it not more dilated than at my previous examinations. Labour appearing to advance slowly, and the parts being not in a state to favour its more rapid progress, a consultation was asked of Dr. Huston, the consulting accoucheur to the Hospital, who, after making an examination *per vaginam*, recommended the os uteri to be anointed with belladonna, and a draught of Mistur. Assafœtid. ℥ss. Morph. Sulph. gr 1-8., to be given every hour, and the Oleum Succini to be rubbed down the spine. After persevering in these remedies for some time, (the patient not being benefited, the fits recurring at the same intervals as before,) they were stopped, and the following mixture was prescribed:

℞ Tr. Valer. Ammon. ℥j.
Tr. Opii Acet. gtt. xlviij.
Camphor. gr. xxxvj.
Ext. Hyoscyam. gr. xij.
Sacch. Alb. et G. Acac. q. s.
Aquæ q. s. ut. ft. ℥vj. M.

A table-spoonful to be given every two hours.

After taking two table-spoonfuls of this mixture, the uterine contractions and the pains ceased; the dose was now diminished to a tea-spoonful, and the patient merely kept under its influence. While she took this medicine, (for she had to suspend its use, on account of a slight nausea, for a day, when the fits again returned,) she had no fits, but remained perfectly well, until the night of the 27th of February, when she was delivered of a boy well formed and healthy. The patient is herself doing perfectly well, there having been no sign of a fit during the delivery, or since.

It may be proper to remark, that during her previous labours, nothing unnatural had occurred; and her life had been exempt from any thing of the kind, until her present accouchement. During the whole of the period occupied in labour, her bowels were in an open state, and her urine passed freely.

J. L. Ludlow, M.D.

March 3, 1842.

ART. II.—OBSERVATIONS ON SOME OF THE SIGNS OF LIVE AND STILL-BIRTH, IN THEIR APPLICATIONS TO MEDICAL JURISPRUDENCE. By John B. Beck, M.D., Professor of Materia Medica and Medical Jurisprudence in the College of Physicians and Surgeons of the University of the State of New York.[1]

[The following observations are from one whose attention has been long and ably directed to a most important subject. They suggest great caution to the medical jurist who is called upon to pronounce in a case so full of moment to all concerned. To exhibit still more strongly the discriminating caution—the judicious doubt—that is demanded in such cases, we premise a summary of the results obtained by another excellent observer—Dr. Guy.[2]

"*Weight of the Lungs.*—1. The weight of the lungs of still-born children of the same age varies within wide limits; the chief causes of difference being the sex and the weight of the body.

"2. The weight of the lungs in mature still-born children is as follows: greatest weight, 1661; least weight, 340; average weight, 874.

"3. The weight of the lungs in mature still-born children of the male and female sex respectively is as follows: greatest weight, 1661, 1492; least weight, 360, 340; average weight, 950, 809.

"4. The weight of the lungs in children who have respired also varies

[1] Transactions of the Medical Society of the State of New York. Vol. 5. Part 2.
[2] Edinb. Med. and Surg. Journ., Jan. 1842, p. 17.

within wide limits; the chief causes of difference, in addition to those which affect still-born children, being the degree and duration of respiration.

"5. In children who have survived their birth one month or less, the highest recorded weight is 2440 grains; the lowest 432 grains; and the average 1072 grains.

"6. The weight of the lungs for males and females respectively, at the same ages, is as follows: greatest weight, 2440, 1745; least weight, 432, 479; average weight, 1121, 982.

"7. The weight of the lungs increases with the increasing perfection of the respiration, but is very slightly augmented by imperfect respiration.

"8. The weight of the lungs also increases with the duration of the respiration; but appears to be less when respiration has continued more than one hour and less than twelve, than when it has lasted less than one hour.

"9. The mean weight of the lungs in mature children who have lived one month or less exceeds the mean weight in mature still-born children, by somewhat less than one-fourth, the numbers being 574 and 1072.

"10. The average and extreme values drawn from small numbers of facts differ widely from each other, and cannot be depended upon for medico-legal purposes.

"11. The average values cannot be safely employed as standards of comparison, and the extreme values admit of very rare application.

"12. If the absolute weight of the lungs is employed as a test of respiration, the value obtained in an individual case ought to be compared with the average or extreme numbers obtained for the same weight of body.

"The following propositions have an important bearing on Ploucquet's Test.

"1. The weight of the lungs both before and after respiration increases with the weight of the body; but the proportion which the lungs bear to the body decreases as the weight of the body increases.

"2. For the same weight of body the weight of the lungs varies within wide limits, and *vice versâ*, for the same weight of lungs the weight of the body varies within wide limits. This variation is more considerable after respiration than before it.

"3. The weight of the body in still-born children is greater than in children born alive; the former exceeding the latter by nearly one-third.

"4. The weight of the lungs is subject to much greater variation than that of the body.

"5. The weight of the lungs is much greater in the male than in the female."

"*Ploucquet's Test.*—1. The proportion which the weight of the lungs bears to that of the body, like the absolute weight of the lungs, varies within wide limits; the proportion in mature still-born children being as follows: greatest proportion, 1 : 24; least proportion, 1 : 176; average proportion, 1 : 57.

"2. The proportion in males and females respectively is as follows; greatest proportion, 1 : 24, 1 : 36; least proportion, 1 : 176, 1 : 119; average proportion, 1 : 53, 1 : 63.

"3. In children who have survived their birth one month or less, the highest recorded proportion is 1 : 19; the lowest, 1 : 132; and the average, 1 : 38.

"4. The proportion for males and females respectively at the same age is as follows: greatest proportion, 1 : 19; least proportion, 1 : 132, 1 : 96; average proportion, 1 : 35, 1 : 43.

"5. The proportion which the lungs bear to the body increases with the increasing perfection of the respiration, but is very slightly augmented by imperfect respiration.

"6. The proportion also increases with the duration of the respiration, but appears to be less when respiration has continued more than one hour and less than twelve, than when it has lasted less than one hour.

"7. The average proportion in mature children who have lived one month

or less, exceeds that in mature still-born children; the numbers being 1 : 57 before respiration; and 1 : 38 after respiration.

"8. The proportions calculated from a small number of facts differ widely from each other, and cannot be depended upon for medico-legal purposes.

"9. The average proportions cannot be safely employed as standards of comparison, and the extreme values, though more to be depended on than the highest and lowest weight of the lungs, are of very limited application.

"10. If the average or extreme proportions are employed as standards of comparison, the proportion obtained in any individual case must be compared with the average or extreme numbers calculated for the same weight of body."

"The observations," Dr. Guy concludes, "contained in the present essay lend strong confirmation to the unfavourable opinion expressed on a former occasion of the static lung tests as tests of respiration. Whether employed to distinguish respiration from non-respiration, or respiration from inflation they are alike insufficient, except in cases of extremely rare occurrence, where we can make use of the extreme values. On the supposition that the question of inflation has no place, the static lung tests are as unnecessary as they are useless; if we have proved that either respiration or inflation has taken place, they can only be employed with advantage in the extremely rare instances just alluded to, viz. where we can employ the extreme values. Hence, then, the proposition which concludes my first essay requires to be slightly modified, and will stand thus:—

"The static lung tests are utterly useless for all practical purposes, and ought not to be relied on in medico-legal inquiries, except in rare instances, where the extreme values can be employed."—Ed.]

In all cases of alleged child murder, one of the great questions to be established, is the fact of the child's having respired or not. As the signs by which this is to be determined are still the subject of much difference of opinion among medical jurists, it becomes important to enlarge our existing stock of knowledge, by the accumulation of new and repeated observations. With this view, I have embraced every opportunity that has been thrown in my way of examining the dead new-born subject. The following observations are founded upon the examination of ten such subjects, which I have been enabled to make through the kindness of some of my professional friends. To Dr. Wilson, formerly physician of the Bellevue Hospital, from which institution many of the subjects were furnished, I am particularly indebted. As the circumstances connected with the birth of each are known, no doubt or uncertainty can attach to the accuracy of the conclusions drawn from them.

Among the tests principally relied on to determine this question, the most important are the following:—1. The static test. 2. The hydrostatic test. 3. The state of the ductus arteriosus.

1. *The static test.* This test is founded on the fact, that the act of respiration causes an increase in the weight of the lungs. There are two forms in which this test has been applied. The first is by comparing the weight of the lungs with that of the body. This is commonly called Ploucquet's test. The second is that of taking the absolute weight of the lungs.

a. Ploucquet's test. This is so called from its having been originally suggested by Ploucquet. It is founded on the fact, that as soon as respiration takes place in a new-born infant, an additional quantity of blood penetrates the lungs, in consequence of which, these organs become heavier than anterior to respiration. As the weight of the body of the child cannot undergo any change, he suggested accordingly, that a comparison of the weight of the body of the child with the weight of its lungs, would furnish a test by which to determine whether it had respired or not. From the few observations which he made, he came to the conclusion that where respiration had not taken place, the proportion between the weight of the lungs and that

of the body, was as 1 to 70; while on the other hand, where respiration had taken place, it was as 1 to 35; or in other words, that the weight of the lungs was doubled in consequence of respiration. A test so beautiful as this, and founded apparently upon principles so truly physiological, it was hoped, would aid, very materially, to solve this important question. Numerous experiments and observations were accordingly made to test its accuracy in actual practice; and the result has been, that while some appreciate it very highly, by others it is viewed as altogether uncertain. In the ten cases which I have examined, the proportions are the following:

Children that had respired.		Children that had not respired.	
1	1 : 43	1	1 : 58
2	1 : 35	2	1 : 36
3	1 : 44	3	1 : 49
		4	1 : 32
		5	1 : 50
		6	1 : 52
		7	1 : 54
Average,	1 : 40	Average,	1 : 47

Now the conclusions to be drawn from these observations, are manifestly adverse to the accuracy of this test. Taking the individual cases, there is not a single one of those which had not respired, which reach the proportions laid down by Ploucquet, while in the same list, cases 2 and 4 are very nearly the proportions laid down for children that have respired. If we take the general averages, too, of the cases, we find that they do not correspond with the proportions suggested by Ploucquet.

Since the time of Ploucquet, a great number of observations have been made by other persons, and as the result, they have all fixed upon different proportions. The following are some of them:

	Before respiration.	After respiration.
Schmitt	1 : 52	1 : 35
Chaussier	1 : 49	1 : 39
Devergie	1 : 60	1 : 45

These, as being deduced from a large number of cases, come nearer the true proportions than those of Ploucquet, and correspond more nearly with my own observations. Still, however, it is to be recollected that they are mere average numbers, and therefore do not meet the circumstances of individual cases, which of course they ought to do, for the purpose of rendering them practically available. It may be asked, then, is this test to be rejected altogether? As an infallible one, it certainly should be. Notwithstanding this, it is still, I think, valuable as furnishing corroborative proof, and should, therefore, never be neglected. It should always be taken in connection with the other signs; and when this is done, it may aid very materially in coming to a correct conclusion.

b. Absolute weight of the lungs. By some it has been supposed, that the actual weight of the lungs would furnish another criterion of the fact of respiration having taken place or not. Accordingly, an average weight of 1000 grains has been proposed for the lungs of a child which has respired, and 600 grains for those of a child which has not respired. A moment's reflection, however, must convince us that this is still more uncertain than the test of Ploucquet. Children born at the full time, we know, differ greatly in their weight, and of course there must be a corresponding difference in the weight of the lungs. I have known a child born at the full time, healthy and perfect in every respect, and yet weigh only four pounds; while children weighing eight, nine and ten pounds are by no means uncommon. The lungs, therefore, of a child which had not respired, of nine pounds, would probably weigh more than those of a child of four pounds, which had respired; and such has been found to be the case by actual

observation. In the cases which I have examined, the following were the weights:

Before respiration.		After respiration.	
1	540 grains.	1	396 grains.
2	720	2	800
3	900	3	814
4	890		
5	900	Average, .	670
6	690		
7	689		
Average, .	761		

An analysis of these weights will show at once how fallacious this test must be. We have here, in three cases, before respiration took place, the lungs weighing more than in those which had respired; while the general average weight is greater in those which had not respired—just the reverse of what it ought to be according to this test.

2. *The Hydrostatic test.* This test is founded upon the difference in the specific gravity of the lungs before and after respiration. In other words, lungs which have not respired will float in water, while those which have not respired will sink. Every observation which I have been enabled to make, has confirmed me in the general accuracy of this test. It is liable, however, to certain fallacies or objections which require to be understood, to enable us to make a correct practical application of the test. On the one hand, lungs which *have not respired* may float from *putrefaction*—from *artificial inflation*—from *emphysema;* while, on the other hand, lungs which *have respired* may sink from *disease*, or from the respiration *being feeble* or *imperfect.* Of these, I shall only notice two, as they are the only ones, of which illustrations have occurred in the cases which I have examined. They are, however, the most important of all the objections.

a. Putrefaction. That the lungs of a child which has not respired may float in consequence of putrefaction, although at one time questioned, is beyond doubt. The case which I shall presently relate, independent of numerous others, establishes this fact. The modes of distinguishing it from the floating of respiration are simple and obvious. *a.* By the air bubbles being visible under the external covering of the lungs. In vital respiration this is not the case. *b.* By the ease with which the air can be pressed out of the lungs. By simply squeezing them in the hand, they can readily be made to sink in the water. In vital respiration this cannot be done. *c.* By the sinking of the internal portion of the lungs. The air, in putrefaction, forms on the surface of the lungs; and hence the internal part, if cut out and put into water, will not float. In vital respiration, the internal part will float more readily than the external part of the lungs.

Case. Aug. 25, 1838. A still-born child was presented for examination by Dr. Wilson of Bellevue Hospital. The child had been born two days before. The weather being intensely hot, decomposition had commenced. The body was of a greenish colour; the abdomen greatly distended; the skin peeling off in several parts of the body. The cord about two inches long, smooth, soft, moist and flexible; weight, 31680 grains; length, 22 inches; the umbilicus twelve inches from the top of the head—the centre of the body, accordingly, a little above the umbilicus. On opening the chest, the surface of the lungs was found covered with air bubbles, varying from the size of a large pea to a pin's head. On the posterior part of these organs there were no air bubbles. The colour of the lungs was dark red, with here and there spots of a lighter hue. The lungs taken out of the chest, with the heart and thymus gland attached, floated in the water; separated from the heart and thymus gland, they also floated, as did also the latter organs. The weight of the lungs was 540 grains; making the relative weight to that

of the body as 1 : 58. A portion of the internal part of the right lung being cut out, sank in water. Both lungs were now subjected to moderate pressure, and after this they sank in water. Each lung was now cut into ten pieces, and on being put into water, some sank, while others floated. On being moderately compressed between the fingers, each separate section sank rapidly to the bottom of the vessel. The ductus arteriosus was cylindrical in shape, and about the size of the pulmonary artery; the foramen ovale open; the umbilical vessels and ductus venosus pervious; and meconium in the large intestines.

This case illustrates, very strikingly, the fact that the lungs of a still-born child may float from putrefaction, and at the same time confirms the accuracy of the tests, by which it may be distinguished from the floating which is the result of vital respiration.

b. Artificial inflation. That the lungs of a child which has not respired may be artificially inflated, so as to cause them to float, though doubted by some, is well established; and when this is the case, it presents one of the most puzzling problems—to distinguish it from vital respiration. The only test upon which any reliance can be placed, is the application of suitable pressure to the lungs. If the floating be the result of vital respiration, no degree of pressure can expel the air from the lungs sufficiently to cause them to sink; while, on the other hand, in cases of artificial inflation, this can be done.

Case. Dec. 6, 1839. Examined a child which had been still-born, but which the accoucheur had attempted to resuscitate by blowing into its mouth, but without success. Length, twenty inches; the centre of the body at the umbilicus; head full of hair; nails full grown, and the body perfectly sound. Weight 47040 grains. No inflammatory circle around the navel; thorax flat. On opening the chest, the lungs were found in the upper and lateral portions of the chest, leaving the pericardium and diaphragm uncovered. On taking out the lungs, the *right* lung was of a dark red colour, with the exception of the lower part of the upper lobe, and the upper part of the lower lobe, which were of a bright red. The middle lobe had alternate patches of bright red and dark red. The left lung was dark red, with the exception of the extremity of the lower lobe and the posterior part of the upper lobe, which were bright red. Distinct crepitus in both lungs in the parts corresponding to the bright patches. The weight of the lungs was 900 grains, making the relative weight to that of the body as 1 : 52. Both lungs floated in water. The separate lobes of each lung also floated. The right lung was then cut into twelve pieces, all of which floated: but all the pieces sank after being subjected to pressure. The left lung was cut into ten pieces, and all but one floated. On pressure being made, they all sank. The pressure was made by placing them in a piece of strong linen, and then twisting and wringing them; after this they were placed under a large flat stone.

The ductus arteriosus was as large as the trunk of the pulmonary artery; cylindrical in shape, and much larger than the branches of the pulmonary artery. The foramen ovale, ductus venosus, umbilical arteries and veins all open.

This case is exceedingly interesting, as illustrating the effects of artificial inflation, and as showing how nearly they resemble those of vital respiration. The floating of the lungs was almost perfect, and the weight of the lungs (900 grains) was nearly that of the usual average standard of children that have respired. On the other hand, the sinking of the lungs, after due pressure, the relative weight of the lungs and the body, 1 : 52, and the state of the ductus arteriosus, were in favour of artificial inflation.

3. *State of the ductus arteriosus.* This is also called the *Vienna* test, from its being originally suggested by Prof. Bernt, of Vienna. It is founded on certain changes, which take place in the ductus arteriosus, immediately after respiration. In the mature fœtus before respiration, this duct is about half an inch long, cylindrical in shape, with a diameter about equal to that

of the pulmonary artery, and more than double the size of the branches of that artery, each of which is equal to that of a crow quill. If the child have respired a few moments, the duct becomes conical in shape, with its contracted part towards the aorta. If the child have respired for some hours or a day, it becomes cylindrical again in shape, but lessened in length and diameter. It is much less now than the pulmonary artery, and not larger than the branches of that artery. If the child have respired for several days or a week, the duct will be found still more contracted; its diameter will be not larger than a crow quill, while the branches of the pulmonary artery are much enlarged to the size of a goose quill.

The result of my observations goes strongly to support the accuracy of these observations. In six still-born children, I found the ductus arteriosus cylindrical in shape, and about the size of the main trunk of the pulmonary artery, and considerably larger than the branches of the pulmonary artery—in some cases double the size. In a seventh still-born child, I found it nearly the size of the pulmonary artery, but not much larger than its branches. In a child which had lived four days, the ductus arteriosus was cylindrical, three lines in length, and about the size of a crow quill, and not more than half the size of the pulmonary artery. In a child which had lived three days, the ductus arteriosus was two and a half lines long and cylindrical; about one-third the size of the pulmonary artery, and somewhat smaller than the branches of that artery. In a child which lived forty-six hours, the ductus arteriosus was one-fourth of an inch long, cylindrical in shape, less than half the size of the pulmonary artery and about equal to the branches of that artery.

Although the foregoing observations, generally speaking, confirm the accuracy of this test, it is to be recollected that it is not to be relied upon in all cases. This has been shown particularly by Orfila.

I have thus, as briefly as possible, recorded the results of the foregoing observations, without indulging in the many comments which naturally suggest themselves. I have, however, in another place,[1] so fully discussed all the points connected with this subject as to render them at present unnecessary.

ART. III.—ANALYTICAL ACCOUNT OF THE RESEARCHES AND RECTIFICATIONS IN THE PRACTICE OF AUSCULTATION AND PERCUSSION, made by Dr. JOSEPH SKODA, Teacher of Clinical Medicine in the Hospital of Vienna. By JOHN DRYSDALE, M.D., and JOHN R. RUSSELL, M.D.[2]

[In a former number of the *Intelligencer* (p. 27) we published the views of Dr. Skoda on Auscultation and Percussion. The following article is a continuation of the former, and contains Dr. Skoda's views on the *Auscultation of the Heart.*—ED.]

On the Sounds of the Heart.—Dr. Skoda first considers in detail the various theories which have been proposed to explain the production of the sounds of the heart, and the experiments on which some of these have been founded, and while he entirely dissents from the explanation of Hope, Burdach, and others, he partially agrees with those given by Magendie, Williams, the Dublin Committee of the British Association, &c.; and then proceeds to develope his own views, which, it will be seen, are fundamentally the same as those of Rouanet and Bouillaud, although differing in some important particulars.

To obtain a solution of the question as to the origin of the sounds heard

[1] Elements of Medical Jurisprudence, by T. Romeyn Beck, MD., and John B. Beck, M.D.

[2] Edinb. Med. and Surg. Journ., Jan. 1842., p. 95.

in the region of the heart, mere vivisection will not alone, he thinks, suffice; but observations on healthy and diseased individuals, and a careful comparison of the phenomena observed during life, with the results of examination after death, are requisite. The sounds arising from the motions of the heart have not the same degree of distinctness and clearness in different individuals, although quite healthy; in one, they are not sharply marked, and scarcely to be heard, while in another, they are very clear; in one, they can scarcely be perceived in the region of the heart, in another, they may be distinctly heard almost over the whole anterior surface of the chest. In many individuals these sounds are heard most distinctly at the point where the heart beats, while in others they are only feebly heard at this spot, and more distinctly over the aorta and pulmonary artery. If the sounds heard at the point where the heart beats be compared with those heard above the base of the heart, at the part under which the aorta and pulmonary artery lie, it will often be remarked that towards the apex of the heart the first sound (*i. e.* that synchronous with the beat of the heart) is longer than the second, while, above the base of the heart, this relation is reversed. On comparing the sound heard at the spot where the apex of the heart strikes the chest, that is, over the left ventricle, with those heard under the sternum, in a line with that spot, *i. e.* over the right ventricle, it will sometimes be observed that the sounds differ in strength and clearness at these two points. Finally, in auscultating above the base of the heart, on the right side of the sternum, somewhat above its middle, *i. e.* the spot under which the aorta runs, the sounds will be sometimes heard different in strength and clearness from those heard in a line with this point about an inch on the left side of the sternum, *i. e.* over the pulmonary artery. These differences in the sounds, which are not unfrequently quite perceptible in healthy individuals, become much more distinct in the various morbid conditions to which the heart is liable. Those who have frequent opportunities of examining cases of diseases of the heart, will meet with instances in which both the normal sounds are entirely wanting in the part of the chest corresponding to the left ventricle, and their place supplied by a single or double abnormal sound resembling blowing, sawing, rasping, &c.; while to the right of this, over the right ventricle, and above the base of the heart, over the aorta and pulmonary artery, both the normal sounds are heard quite distinctly. In other cases, the sounds may be normal in the left ventricle, in the aorta and pulmonary artery, while they are replaced by a bellows-sound in the right ventricle. Still more frequently are cases met with in which a single or double bellows-sound is heard in the part corresponding to the course of the aorta, while both the normal sounds are heard distinctly over the right and left ventricles, and over the pulmonary artery. It also happens that a single or double abnormal sound may be heard over the aorta and left ventricle, while the normal sounds are heard over the right ventricle and pulmonary artery; or there is heard an abnormal sound over both ventricles, or over the right ventricle and the aorta, or over both ventricles and the aorta, while in the spots where no abnormal sound is heard the normal sounds may be distinctly perceived.

If these observations are correct, then it follows that the right and left ventricles, the aorta and pulmonary artery are each, independently, capable of producing both the sounds heard in the region of the heart.

On comparing the observations during life with the results of dissections, it is almost always observed that abnormal conditions of the valves,—such as, excrescences, thickening, narrowing of the orifices, are formed in cases which have presented, during life, the alterations of the normal sounds described above. Yet it cannot be denied, that occasionally the valves are found not quite normal after death, in cases which presented no alteration of the sounds during life. This shows that it is not every change in the valves that is capable of producing a sufficiently perceptible alteration in the sounds; or that other circumstances must co-operate with the affection of

the valves in producing alteration of the sounds. These facts render necessary a more detailed examination of the structure and function of the valves in the healthy as well as in the morbid state.

Action of the tricuspid and mitral valves during the motions of the Heart.—Dr. Skoda here directs attention to the mode of distribution of the *cordæ tendineæ* on the tricuspid and mitral valves, which, though previously overlooked, is of so much importance, that, without taking it into account, we cannot form an accurate idea of the precise mode in which these valves prevent the reflux of the blood into the auricles. We may, therefore, enter somewhat more fully into his description of the anatomy and function of these parts.

From each *columna carnea* run several stronger fibres (*cordæ tendineæ*) to the middle of the ventricular surface of the valve, and are inserted there, or some of them go to the base of the valve, and are inserted at the point of junction of the valve with the wall of the ventricle. From these stronger fibres, about their middle, and partly also from the *columnæ carneæ* arise finer fibres, which are inserted nearer the free edge of the valve. These finer fibres serve as points of attachment to still more delicate ones, which are inserted nearer and into the free margin of the valve. By pulling the *columnæ carneæ* in the direction which they have in the heart, it will be seen that only the stronger fibres, which spring from the *columnæ carneæ* are stretched; both the other kinds remaining relaxed, even with the utmost force we can exert. By thus pulling we never can stretch the free edge of the valve, but only the part of it between its attachment and the point of insertion of the tendinous fibres, which arise in the *columnæ carneæ;* the whole of the rest of the valve, *i. e.* from the middle to the edge, remains relaxed. If we press back, in the direction of the auricle, any point of this loose part of the valve, so as to stretch the fibres that are inserted into it, a number of pouches are disclosed to view, and on further examination the whole ventricular surface of the valve, from the free edge to the middle, is found to present similar pouches, which are obviously formed by the peculiar mode in which the tendinous fibres are inserted. These pouches represent, as it were, small semilunar valves, and the tri and bicuspid valves present the appearance of a combination of a vast number of small semilunar valves, which are kept in their proper position by the tendinous fibres. By blowing or pouring water on the valve, this loose part is blown up like a sail, and the whole of the pouches are seen at once. During the contraction of the ventricle, when the blood tends to flow back into the auricle, it necessarily catches in these pouches, and thus spreads out the loose part of the valves as far as the tendinous fibres permit. By means of this expansion of the valve, the blood prevents its own reflux into the auricle, provided that the valve is held in such a position by the fibres that no opening remains upon its expansion. And to secure this, as is well known, the *cordæ tendineæ* take their origin from the *columnæ carneæ*, in order that they may present the same relative length during the contraction of the ventricle.

In order that the tricuspid and mitral valves may perform their function properly, they must display the above described pouches at the free edges, and the *cordæ tendineæ* and *columnæ carneæ* must have a length corresponding to the size of the ventricle. If the valve deviate from the normal conformation, then it is either unable to prevent the reflux of the blood into the auricle, or it offers resistance to the flow of the blood from the auricle into the ventricle during the diastole of the latter. The first of these is produced by thickening and shortening of the free edge of the valve; or by its adhesion to the finer tendinous fibres, thus producing obliteration of the pouches: or by shortening, lengthening, or laceration of the *cordæ tendineæ* or by deposition of excrescences, &c. on the edge of the valve; the second, by considerable excrescences, blood coagula, calcareous concretions, &c. on the auricular surface of the valve; or by adhesions of the *cordæ tendineæ* to

one another, or to the free edge of the valve which prevent it from being freely opened.

Explanation of the Normal Sounds in the Ventricles.—The comparison of the observations made on patients with the results of dissection, have shown that a distinct first normal sound is almost never heard in the left ventricle, when the mitral valve is incapable of hindering the reflux of the blood into the auricle during the contraction of the ventricle, *i. e.* when it is imperfect. In such a case, there is heard an abnormal sound simultaneous with the systole of the ventricle; while at the same time a distinct normal sound can be heard in all the other parts of the region of the heart. The same may be observed of the right ventricle. The first sound which is heard during the systole of the ventricle, arises from the interruption of the stream of blood, from the shutting of the mitral and tricuspid valves, and depends upon the *columnæ carneæ* and *cordæ tendineæ* being thrown into vibration by the sudden closure—by the blood in the ventricle—of the mitral and tricuspid valves, and the reason that the sound is prolonged is, that the vibration continues as long as this state of tension is maintained. This explanation fully accounts for the prolonged character of the sound, for cords when suddenly stretched will vibrate for a considerable time, if the tension be continued, and may emit a clear or even ringing tone resembling the one which characterizes the first sound of the ventricles, and wholly unlike that produced by the contraction of muscles, which is always dull and indistinct.[1]

The explanation of the second sound in the ventricles is a point of much greater difficulty. It cannot be said that, in the normal state of the heart, a second sound always originates in the ventricles, since it is certain that the second sound heard in the ventricles is generally that transmitted from the semilunar valves. But there certainly are cases in which we are obliged to admit the origin of the second sound in the region of the ventricles themselves, viz. when the second sound is scarcely heard at all, or very weak, over the base of the heart, while it is heard clear and loud at the apex. Dr. Skoda thinks that none of the theories of the sounds of the heart afford a satisfactory explanation of this, and therefore leaves it quite doubtful; although he thinks it probable that it may originate in the sudden detachment, during the diastole of the ventricle, of the apex of the heart from the parietes of the chest, when it is covered with somewhat viscid effusion.

Explanation of the Sounds in the Arteries.—In the pulmonary artery, aorta, carotid, and subclavian arteries, sounds are usually heard exactly similar to the normal sounds of the heart. These have been usually ascribed to the propagation of the sounds of the heart along the arteries; but Dr. Skoda believes, for these reasons, that they have their origin in the arteries themselves. 1st, In certain rare cases a sound can be heard in all the larger arteries precisely similar to one of the normal sounds of the heart; and no one has thought of ascribing such sounds heard in the brachial or crural arteries to propagation of sound from the heart. 2d, Sounds are frequently heard in the carotid and subclavian, while the normal sounds are either not heard at all in the heart, or very much weaker than in the neck. It has been attempted to explain this by referring it to a peculiar mode of conduction of the sounds on account of some abnormity in the organs of the chest; but cases of this kind are common enough, where the lungs have been found quite healthy. Bouillaud also believes that the arteries may produce a sound, although not like the proper tic-tac of the heart, but one of an indistinct character. Skoda admits that, in the arteries more distant from the heart, such is frequently the character of sound heard; but the nearer ones, viz. the carotid, subclavian, aorta, and pulmonary artery, give in general a tic-tac, just as loud as is heard in the region of the heart, while, on the other

[1] Dr. Skoda here notices, that a sound quite similar to that over the left ventricle may sometimes be produced, by the stroke of the apex of the heart against the walls of the chest, but does not lay any practical weight on it.

hand, the sounds in the region of the heart are sometimes also dull and indistinct.

The cause of the sound heard in the arteries synchronous with the pulsation, *i. e.* the first sound, is, according to Skoda, the sudden tension of the coats of the vessel.

The second normal sound is heard in the aorta and pulmonary artery, and usually also in the carotid and subclavian. It is obviously produced by the shock of the column of blood against the semilunar valves, which is communicated to the coats, not only of the aorta and pulmonary artery, but also, not unfrequently, to the carotid and subclavian.

On the varieties in the Normal Sounds.—These sounds may, even in the healthy subject, present a great variety of modifications, which it is unnecessary to enter into here, except to make the practical observation, that the more the sounds have the clapping sharp sound, the greater is the certainty that they are produced by the proper action of the valves. And if the sound heard over the ventricles is of an undefined, murmuring character, it is proper to denominate it an indeterminate sound, (as has been already done with respect to respiration,) and draw no conclusion at all from it.

On the Abnormal Sounds.—These have their origin within the cavities of the heart, within the arteries or in their coats, or in the pericardium.

On the Abnormal Sounds which arise within the cavities of the Heart.—These have been variously denominated, according as they have been compared at different times by different observers, to the noise of a pair of bellows, a file, a saw, a rasp, &c., or they have been termed whistling or groaning, &c. The physical conditions necessary to the production of these abnormal sounds, are now generally admitted to be the friction of the blood against the walls of the heart and valves, caused by certain organic changes within the heart, viz:—

1st. Imperfection of the tricuspid and mitral valves, or of the aortic valves.

2d. Contraction of the left auriculo-ventricular orifice, or of the aortic orifice.

3d. Roughness, as from excrescences, cartilaginous or calcareous concretions, or blood coagula, on the endocardium towards the orifice of the aorta, on the lower surface of the semilunar valves of the aorta or pulmonary artery, or on the ventricular surface of the tricuspid and mitral valves.

Many have believed that these abnormal sounds may be produced without organic change in the heart, *e. g.* by mere spasm, as conceived by Laennec. This is denied by Skoda. Andral maintains that abnormal sounds may be generated in the heart, as the simple effect of general plethora. Skoda denies that this can take place unless there previously existed some organic change which was too slight to give rise to abnormal sounds during the ordinary action of the heart, but which produced one whenever the action became increased in consequence of the plethora. It has likewise been asserted that abnormal sounds arise after great losses of blood, and in anæmia in general, when the action of the heart is lively. Skoda has repeatedly examined patients in whom a deficiency of blood, either from bleeding or from disease, was well marked, when the action of the heart was lively, and he thinks he has even examined patients who have died of want of blood; but he has never met with a case where abnormal sounds were dependent solely upon that cause. Likewise, the abnormal sound heard in chlorotic patients is not found in the heart, but usually only in the arteries of the neck. In the aorta it is seldom loud, and in these cases it can at times be heard over the heart, although only as a dull sound.

It has been observed, that in the same case of heart disease, the character of the sound frequently varies, and at one time a bellows, and at another a saw sound, &c. is heard, according as the action of the heart is more or less energetic; and often it is quite arbitrary how the sound is denominated, for, if several observers auscultate the same case, one will compare the sound to a file, another to bellows, &c. Dr. Skoda therefore considers any subdivi-

sion of the abnormal sounds quite superfluous and of no diagnostic value, and comprehends them all under the general term "Geräusch," which has been here rendered "abnormal sound," and sometimes "bellows-sound," which, as most common, we employ as representing any abnormal sound, unless otherwise specified. The points of importance to know are where they arise, and whether they are synchronous with the systole or diastole, for upon these circumstances depend their value as diagnostic signs.

On the Abnormal Sounds in the Arteries.—All the different kinds of abnormal sounds which occur in the ventricles may be generated in the aorta. They are produced by excrescences, cartilaginous or calcareous concretions, &c. on the lining membrane of the vessel, attended with contraction, or dilatation, or normal size of its calibre. The state of the valves may likewise give rise to abnormal sounds, as when their lower surface is rough, when there are excrescences on the free edge, when they are rigid or adhering to each other, so that the stream of blood cannot press them quite back to the sides of the vessel; and when they are imperfect. Abnormal sounds in the pulmonary artery are of extremely rare occurrence.

Any notice of the various sounds in the other arteries in chlorosis, &c. would lead us into details inconsistent with the object of the present notice.

On the Pericardial Sounds.—When, from any cause, such as exudation of lymph, calcareous and other concretions, &c. the surface of the pericardium becomes rough, certain sounds are found to accompany the motions of the heart, either in the systole and diastole of the ventricles, or during the latter alone. It has been attempted by describing the different varieties of these sounds to obtain certain means of distinguishing affections of the pericardium from those of the heart. Bouillaud, in particular, has described three species, which he conceives to be peculiar to the pericardium, and capable of being distinguished from those which arise in the heart. Skoda has, however, found that these varieties of the rubbing sound certainly do occur in the pericardium, but also several more; and his experience has led him to the conclusion, that the rubbing sound in the pericardium may imitate every sound produced within the heart, with the exception of the whistling sound; and, on the other hand, every variety of the rubbing sound of the pericardium may occur within the heart. Likewise, the circumstance that a sound appears superficial or remote, is no ground of distinction; for a sound propagated through solid bodies appears quite superficial when it is loud, and *vice versâ;* and though a very loud bellows sound in the heart may often appear quite superficial, while a pericardial sound is often weak and dull, and therefore appears to come from a distance. There is nothing, therefore, in the character of the sounds themselves, or in the apparent distance, that enables us to determine whether they are produced in the pericardium or within the heart. The only direction that Dr. Skoda can give for distinguishing them, is, that the abnormal sounds within the heart follow exactly the rhythm of its beat, and correspond to the normal sounds, while those in the pericardium appear to be somewhat postponed. But this test cannot be applied when the beat is very short. We must then rest the diagnosis on the other circumstances of the case, such as the indications afforded by percussion, the consecutive changes attending valvular disease, &c. Dr. Skoda is further of opinion, that no sound can occur in the pericardium, until there is an exudation of plastic lymph, until, indeed, rough spots are formed on its surface—and that the motions must possess a certain degree of strength, for when they are too weak, the surface of the pericardium may be covered with a thick and rough false membrane, and yet no rubbing sound be produced.

Indications afforded by the Normal and Abnormal Sounds in the Ventricles, Aorta, and Pulmonary Artery.—Before entering on this it may be noticed, that the left ventricle is to be auscultated at the spot where the beat of the heart is felt; the right generally at the inferior part of the sternum; the aorta a little to the right and above the middle of the sternum;

and the pulmonary artery a little to the left of the middle of the sternum. The position of the right ventricle and pulmonary artery is variable, and can only be determined by that of the ventricles and aorta.

I. *a. In the left ventricle during the systole.*—*α.* The (first) normal sound without bellows-sound, indicates that the mitral valve closes, and thus prevents the reflux of the blood into the auricle.

β. Bellows-sound in the place of the (first) normal sound, arises from the imperfect closure of the mitral valve, and in this case it is caused either by the friction of the regurgitating blood on the rough spot of the margin of the valve, or by a stream of blood driven from the ventricle meeting one flowing in the opposite direction in the auricle; or from friction of the blood on rough spots in the neighbourhood of the aortic orifice, while, at the same time, the mitral valve may shut perfectly, or from a combination of both these conditions. In imperfection of the mitral valve, the pulmonary circulation is always overloaded, and obstruction afforded to the passage of the blood through the lungs, and hence follow increased action of the right heart, greater tension of the pulmonary artery, and consequently, preternatural loudness of the sound of the valves, *i. e.* the second normal sound heard over the pulmonary artery. Hence a bellows-sound in the left ventricle during the systole does not indicate imperfect closure of the mitral valve, unless the second sound in the pulmonary artery be at the same time louder than natural. If the second sound of the pulmonary artery be not strengthened, the bellows-sound heard during the dystole in the left ventricle indicates roughness either of the surface of the valve, or of the lining membrane of the ventricle in the neighbourhood of the aortic orifice; for it is only here that the current of blood has a sufficient velocity to cause a sound.

γ. A bellows-sound accompanying the normal sound, affords the same indication as a bellows-sound without the normal sound.—For the normal sound may be produced by the perfect closure of the mitral valve, while a bellows-sound is at the same time produced by rough spots near the orifice of the aorta; or the normal sound may arise from the expansion of some of the pouches of the mitral valve which remain normal, while the imperfection of the rest gives rise to a bellows-sound.

δ. Absence both of normal and abnormal sounds is a phenomenon which gives no information as to the state of the mitral valve.—For the valve may shut perfectly, and yet the presence of circumstances which deaden the sound may render it inaudible. But there may also exist imperfection of the mitral valve, and yet no bellows-sound be present, if the current of blood do not meet with any rough spots, or is not sufficiently rapid. This happens, however, very rarely. In such a case the diagnosis must be rested on collateral circumstances, such as the state of the valves of the pulmonary artery, &c.

b. Sounds heard in the left ventricle during the diastole.

α. The normal (second) sound, without bellows-sound, indicates that the left auriculo-ventricular orifice is not contracted, and that the blood does not encounter any rough spots in its passage from the auricle to the ventricle.

β. Bellows-sound, either accompanying the normal sound or alone, indicates contraction and roughness of the auriculo-ventricular orifice, or rough and projecting spots on the auricular surface of the valve without narrowing of the orifice. In contraction of the auriculo-ventricular orifice, the obstruction of the lesser circulation causes even more rapidly than imperfection of the mitral valve, hypertrophy with dilatation of the right ventricle, and increased loudness of the second sound in the pulmonary artery. If there be merely roughness of the auricular surface of the valve without contraction of the surface, there is no increase of the loudness of the second sound in the pulmonary artery, unless it happens to be there already from other causes. The greater the contraction of the orifice, the longer and more sonorous is the sound heard; and when considerable, it may give rise to that thrilling sensation felt with the hand over the region of the heart, called by Laennec *fremissement cataire.*

γ. *Absence both of normal and abnormal sounds* affords no definite indication.

II. *a.* In the right ventricle during the systole.

α. *The normal (first) sound without bellows-sound*, indicates that the tricuspid valve closes perfectly, and prevents the reflux of the blood into the auricle.

β. *Bellows-sound, alone or accompanying the normal sound*, indicates either imperfection of the tricuspid valve with rough spots on its free edge, or excrescences in the neighbourhood of the arterial orifice, while the valve closes perfectly: the latter, however, occurs very rarely. Imperfection of the tricuspid valve causes an accumulation of blood in the auricle, *vena cava*, and jugular veins, increased at each systole of the ventricle, and thus is produced the pulsation of the jugular veins. Imperfection of the tricuspid valve is thus indicated by a bellows-sound in the right ventricle during the systole, with simultaneous pulsation of the jugular veins.

b. Hitherto Dr. Skoda has never met with an abnormal sound during the diastole of the right ventricle; and the narrowing of the right auriculo-ventricular orifice, if it ever takes place, must be an extremely rare occurrence.

III. *a.* In the aorta during the systole of the heart.

α. *The normal (first) sound without bellows-sound*, does not necessarily indicate a perfectly normal condition of the aorta, for it may be present in various abnormal states of that vessel, such as alterations in its capacity or thickening of its coats, which may influence the intensity of its sounds without affecting their character.

β. *Bellows-sound, with or without the normal sound*, indicates rough spots on the inner surface of the aorta, or on the under surface of the semilunar valves. But in chlorotic persons, the vibrations of the carotid or subclavian are sometimes propagated down to the aorta, and thus are abnormal sounds—usually only dull—and may be heard in this vessel without there being any roughness present.

γ. *Absence of sound, normal or abnormal.*—The same remark applies here as when this occurs in the ventricles.

b. In the aorta during the diastole of the ventricles.

α. *The normal (second) sound without bellows-sound*, indicates the closure of the aortic valves.

β. *Bellows-sound, without the normal sound, if it is prolonged and heard beyond the base of the heart*, indicates imperfection of the semilunar valves, with rough spots on their free edges. If the bellows-sound is only of short duration, or heard only high up in the aorta, it may arise merely from rough places on the inner surface of the aorta, without imperfection of the semilunar valves.

γ. *Bellows-sound, ending in a normal sound*, arises from the presence of rough places on the inner surface of the aorta, while, at the same time, the semilunar valves close perfectly.

δ. *Bellows-sound and normal sound heard together, but so, that the bellows-sound is prolonged beyond the normal sound.*—This indicates that the aortic valves are expanded by the column of blood, but they are not quite perfect, and the regurgitating blood produces a prolonged bellows-sound.

IV. *a.* Hitherto Dr. Skoda has met with only three cases where a sound so prolonged as to be considered abnormal was heard in the pulmonary artery during the systole of the ventricles. But he had not the opportunity of ascertaining by dissection the cause of this.

b. During the diastole he has, as yet, never heard an abnormal sound in the pulmonary artery. The normal sound is strong in imperfection of the mitral valve, contraction of the auriculo-ventricular orifice as already mentioned; but it may also be strong without any such disease of the mitral valve, if there be hypertrophy and dilatation of the right ventricle, and lively action of the heart.

BIBLIOGRAPHICAL NOTICES.

Warrington's Obstetric Catechism.[1]

The author of this Catechism is a zealous prosecutor of Obstetrics, and we have often had occasion to refer to him in the pages of this Journal. He is engaged, too, actively in teaching practical obstetrics, and has gained the esteem of many pupils now spread abroad in various parts of the Union.

In preparing the book before us, Dr. Warrington states, that he has not followed the systematic arrangement adopted by any obstetric writer. "If," says he, "I have been biassed by any extrinsic influence, it has been by that of the courses of obstetric instruction given in the University of Pennsylvania, my Alma Mater. I have not, however, calculated it for the meridian of that school only."

It was not necessary, that the author should have pointed out this bias, inasmuch as it is evidenced in numerous parts of the volume, in which he brings prominently forward the opinions of the able Professor of Obstetrics in the University of Pennsylvania:—

Thus, "What diameter is the larger in the recent pelvis—the oblique or transverse? Ramsbotham says, the oblique—Hodge the transverse diameter, &c."

"What has been observed by Professor Hodge, of the direction in which the fibres contract during the effort to expel the placenta?

"How does Dr. Hodge trace up the chain of morbid nervous actions or sympathies in these cases." [spinal irritation.]

"Does the chorion form the basis of the placenta? This point is not well settled, though in the opinion of Hodge, Dewees, and some others, it does."

"What is Professor Hodge's theory of the mode of formation of the placenta?" &c. &c.

This frequent reference to the views of the Professor of Obstetrics will render the volume more useful to the students of the University of Pennsylvania than to those of any other school: at the same time, it contains matter that is valuable to all. We do not, however, admire this method of *quizzing* or *grinding*, and would have preferred, that the book had taken any other shape than that of question and answer.

We may express our surprise, by the way, that nothing is said under the "signs of pregnancy," either of the blue colour of the vagina observed so frequently by Jacquemin, Kluge and others; or of the Kiesteine, regarding which we have now so much valuable information. Certainly, no obstetric course or book can be complete without a reference to the latter, the evidence in favour of which is perhaps stronger than that of any sign in the earlier months.

In respect, too, to the placental souffle—as it has been termed—Dr. Warrington might have alluded to the fact, that a similar sound has been heard, where there was no pregnancy. Of this the author has satisfied himself; and further evidence thereof is contained in the work of Hope, now in course of publication in the *Library*, and in the valuable additions made to it by Dr. Pennock.

We cannot but regret, that the estimable author should have allowed so many verbal inaccuracies to exist, especially as the work is intended for

[1] The Obstetric Catechism. By Joseph Warrington, M.D. 12mo. pp. 350. Philadelphia, 1842.

students. Thus, we observe—*Lamboid Suture*, *Saggital* Suture, Symphysis *pubes*, *Hyosciamus*, *Tympanitis* Uteri, *germniparous*, *epigenisis*, &c.

Circular Letter to the Physicians of Kentucky.[1]

The object of this letter is laudable. It is to exhibit the advantages which would accrue to the medical profession in Kentucky and to the public in general, by the establishment of a board of examining physicians, who shall meet annually for the purpose of conferring diplomas on all candidates who may be found worthy upon a rigorous examination. The committee appointed to prepare the circular were Drs. Linton, of Springfield, Duke, of Maysville, Burnet, of Trigg, and Bennet, of Kenton.

Transactions of the Medical Society of New York.[2]

This second part contains, 1. The annual address by Dr. John B. Beck, M. D., President; being a sketch of American Medicine before the Revolution, already noticed. 2. A brief review of Dr. Marshall Hall's views on an excito-motory system of nerves, by N. J. Davis, M. D. 3. Observations on some of the signs of live and still-birth—reprinted in the present number of the 'Intelligencer;' and, 4. The Appendix, containing an abstract of the Proceedings of the Medical Society of the State of New York, at its annual session, in February, 1842.

Pharmacopœia of the United States.[3]

In the present number of the 'Intelligencer' we cannot do more than announce the appearance of this *official* volume—which has for the last two years occupied so much of our attention, and that of our valued colleagues, Professors Wood and Bache, of the Committee of the National Convention—and recommend it to the special attention of all our readers.

Dr. J. B. Beck's Sketch of American Medicine before the Revolution.[4]

The author of this 'Sketch' is known as one of the most able and estimable physicians of this country. As an author, he has been long before the profession, and so highly impressed were we with the value of the "New York Medical and Physical Journal," of which he was principal editor, that nearly twenty years ago he was proposed by us a Corresponding Member of the "Medical Society," the oldest and one of the most respectable institutions of the British Metropolis, of which we were, at the time, Secretary for Foreign Correspondence; or, as the Latin diplomas say—"*ab epistolis ad exteros dandis.*"

The sketch before us appears in the "Transactions of the Medical Society of the State of New York," vol. v. part 2, and is a valuable contribution to the medical history of the country.

[1] 12mo. pp. 12, Maysville, Kentucky, 1842. [2] Vol. v. part 2.

[3] The Pharmacopœia of the United States of America. By authority of the National Medical Convention held at Washington, A. D. 1840. 8vo. pp. 279, Philadelphia, 1841.

[4] An Historical Sketch of the State of American Medicine before the Revolution, being the Annual Address delivered before the Medical Society of the State of New York, February 1, 1842: by John B. Beck, M. D., President of the Society, Professor of Materia Medica and Medical Jurisprudence in the College of Physicians and Surgeons of the City of New York; one of the Physicians of the New York Hospital; Corresponding Member of the Royal Academy of Medicine of Paris; Corresponding Member of the Medical Society of London, &c., 8vo. pp. 35, Albany, 1842.

Dr. Coventry's Valedictory Address.[1]

There is much good sense exhibited in the advice to the graduates of Geneva College, delivered by Dr. Coventry. In the midst of the repeated applications to the legislature of his state by *practitioners*, who neither are, nor ought to be, considered physicians, for all the immunities and privileges that are possessed by those who are rightfully such, we are not surprised that the whole subject of quackery should suggest itself to him; and we apprehend, that the following views on the subject are the most rational. They are at least such as we have always maintained, whilst we have been compelled to admit, that the evil may only admit of diminution—not, we think, of eradication. Man is essentially a gullible animal, and if one folly passes away, another—we fear—must soon succeed.

"Some experience and much reflection on the subject has long since produced the conviction that this is an evil which can neither be combated by reason nor suppressed by legislative enactments. We would suppose that education and the diffusion of general intelligence would correct it, but past experience contradicts the supposition; our papers are filled with the names of men of education and talents attached to recommendations of nostrums, of the composition and effects of which they are perfectly ignorant. One mode, and only one, remains of correcting the evil; if this fails, it is remediless. Let medical men divest the profession of all the mystery in which it has unfortunately been enveloped—too long has the physician been considered the rival of the juggler. Let them demonstrate, that like every other science, it is founded on careful observation; that, it consists of the accumulated and recorded observations of successive ages; that no man is born a physician, but to acquire this knowledge is the labour of years of unremitting toil. Teach men the functions of their own system, how admirable in design, how complicated in structure, and yet how beautifully adapted in every part to the performance of its own appropriate functions. Then ask them if they are willing to trust the correction of derangements of this beautiful machine, to persons entirely ignorant of its several parts, when a single error may cost them their lives.

"To guard against quackery and empiricism out of the profession would not be the only good accomplished by the general diffusion of this knowledge. It would qualify community to judge as to the actual and comparative merits of members of the profession. The modest and unassuming physician would be elevated to his proper station, whilst presumptuous ignorance, whether with or without a diploma, would be consigned to deserved contempt. A knowledge of their own system would enable mankind to guard against many causes of disease to which they are continually subject. To accomplish this as far as possible has ever been a favourite object with the founders of this institution. It has been urged upon her graduates to improve every opportunity of giving popular lectures on anatomy, physiology and hygiene. There are few places where an audience could not be collected to listen to a lecture on those interesting subjects, and few physicians are so fully occupied during the first years of their practice but they could find ample time for their praparation and delivery. Permit me to repeat to you, young gentlemen, the recommendation; your leisure hours could not be more profitably employed either for yourselves or the public; and we ask for our Institution no prouder distinction than that her graduates should be everywhere known as the pioneers in the great work of reform." —pp. 14, 15.

[1] Address to the Graduates of the Medical Institution of Geneva College, delivered January 25, 1842. By C. B. Coventry, M.D. Dean of the Faculty, and Professor of Obstetrics and Medical Jurisprudence. (Published by request of the Class.) 8vo. pp. 16. Utica, 1842.

MISCELLANEOUS NOTICES.

Thomsonianism in Michigan and New York.—[It is stated in recent Journals, that Thomsonians have now the benefit of law in Michigan in the collection of debts, "and to all intents and purposes are as much protected and respected as the first surgeons in America."! (*Boston Med. and Surgical Journal*, cited in *New York Med. Gazette.*) This news would not be a source of regret did the people in general possess adequate information on subjects connected with our profession. That they do not is matter of notoriety, and the pages of our own Journal, from time to time, afford ample evidence of the fact. The circumstance, indeed, that a legislature has granted such privileges and immunities to a class of uninformed individuals, merely because they support a preposterous doctrine—if doctrine it can be called—exhibits, that there is a sad lack of knowledge and discretion amongst those who ought to be the representatives of the better intelligence of the community.

In New York, the Medical Society, under a law of the State, tests by examination the qualifications of all practitioners. This, of course, does not suit the Thomsonians, who have petitioned the legislature for an exemption. The following report of the Committee on Medical Societies and Colleges on petitions "for a law to enable Thomsonian physicians to collect pay for their services" is conclusive, and we would fain hope,—against hope, however,—that the matter will be set at rest in that State, where these deluded or deluding individuals have been considerably turbulent.—Ed.]

Mr. Taylor, from the Committee on Medical Societies and Colleges, to whom was referred sundry petitions praying for a law which shall recognise the Thomsonian Medical Society of the State of New York, and enable the "Thomsonian," or "Botanic Physicians" to collect pay for their services, Reports:

That the petitioners represent, that "the Thomsonian physicians have formed themselves into a State society for mutual improvement and to establish due regulations respecting those who may become public practitioners," which they ask may be organised by law. They complain "that the law regulating the practice of physic and surgery in this State, operates unjustly;" that their "system of medical practice differs from that now sanctioned by law, so materially as to render it inconsistent and oppressive for them to conform to the requisitions of the legally established order of physicians;" and that "consequently they are deprived of the right of collecting pay for their services," which privilege they ask the legislature to grant to those who receive diplomas from the State Thomsonian Society. In short, they ask to be placed by law on a footing of equality, as to rights and immunities, with those who now enter the profession of medicine under the requirements of existing laws, without any obligations on their part as to qualifications, except such as they may voluntarily establish among themselves.

It is believed that it has never been the intention of the legislature to establish, or recognize by law, any particular mode or system of medical practice, and any attempt to do so would not only be unwise and impolitic, but, for many reasons, would necessarily fail of its object. The present laws regulating the practice of physic and surgery are doubtless designed to encourage the cultivation of science, to guard against the evils of ignorance in that most responsible profession which has the charge of the public health, and to secure to the people that guaranty of safety which is afforded in the assurance, that he who is authorized to practice medicine has at least devoted a reasonable time in acquiring a knowledge of his profession, and has submitted to the ordeal of an examination of his qualifications, by an authorised and competent tribunal.

The regular term of study established by law is four years, or three years with a complete course of all the lectures delivered in any incorporated medical college. The time thus required to be devoted in obtaining a competent knowledge of medicine and its collateral branches of science, an acquaintance with which is necessary to qualify the medical student for an enlightened discharge of the duties of his profession, has not been considered too much or unnecessarily burdensome; but, on the contrary, the opinion is becoming more prevalent among those best qualified to judge, that the standard of medical education should be elevated still higher, and more rigid rules imposed upon those who may seek to enter the profession. If it was only necessary to become acquainted with the principles of that philosophy, which teaches as one of its soundest maxims, "that the metals and minerals are in the earth, and being extracted from the depths of the earth, have a tendency to carry all down into the earth, or in other words, the grave, who use them. That the tendency of all vegetables is to spring up from the earth: their tendency is upwards; their tendency is to invigorate and fructify, and uphold mankind from the grave." If the range of medical study was to be confined to "the Thomsonian Guide to Health," a few books on botany, and two or three Thomsonian medical periodicals, and the study of anatomy and physiology discarded as useless, as seems to have been the opinion of the president of the Thomsonian State Medical Society, in his answer to a committee of this house in 1840, then, indeed, the term of study required by law might well be considered unjust and oppressive; but presuming it is not the desire of the legislature to encourage so limited a range of medical inquiry, your committee cannot imagine it will be deemed politic or wise to establish or reorganise, by law, a State society entertaining and teaching these views, and seeking to give them importance and influence by the sanctions of legislative enactments. If, then, the term of study at present required, is not too long to accomplish the designs of the legislature, it is submitted that the door of the profession is open alike to all; there is no exclusiveness or inequality of privilege; all are alike admitted who comply with the terms prescribed. There is no legal restraints imposed in the selection of medicine for the removal of disease. The licensed physician having had an opportunity of investigating to some extent the properties of the long catalogue of remedial agents, is at perfect liberty to select such as in his judgment shall be best adapted to the object in view; and if he shall prefer, in the treatment of any one disease, to employ "lobelia," "steam," "composition," or number 6," it cannot be doubted that his acquaintance with the human system, the pathology of disease, and the power of remedies, will ordinarily render these or any other agents more safe and successful in his hands, than in the hands of those who regard these qualifications as useless and unnecessary. It remains, then, for the legislature to determine, whether the standard of medical education shall be lowered to meet the wishes of the petitioners, and a particular mode or system of practice, which requires at most but a few months of time and study, shall be legally recognised as ample in its provisions, and safe in practice; or whether the Thomsonian, as well as all others, who may claim public confidence, and the immunities of the profession, on the ground of having conformed to the provisions of law, shall be required to come up to that standard of education indicated by the rules and regulations at present prescribed.

A part of the petitioners have only asked that the "Thomsonian physicians" may be allowed the privilege of enforcing payment for their services. They pray "that a law may be passed immediately, recognising the obligation of a contract made with Thomsonian physicians, so as to enable them, or *especially* such of them as may be duly licensed to practise by the State or County Thomsonian societies, to collect pay for services rendered by them, as physicians." It may be worthy of remark, that notwithstanding the petitioners maintain "that all men, everywhere, should have the protection of the laws in their various callings, and should be furnished with the same legal remedy for enforcing the moral obligations of a contract,"

they nevertheless appear to be the advocates of restriction, and ask that this "legal remedy" may be extended *especially* to the Thomsonian physicians. But as it is hardly to be supposed the legislature will adopt a variety of grades or degrees of qualification, it remains to be considered whether the only legal remedy now existing against unlicensed practitioners, and which renders them incapable of recovering, by suit, any debt arising from their practice, ought to be repealed.

All of the enactments regulating the practice of physic and surgery in this state, from that of the Colonial Assembly of the Province of New York, in the year 1683, to the present time, have contained some provision for enforcing compliance with the law. The act above referred to contained a penalty of five pounds against any person practising without a legal certificate. This was confined to the city of New York. In 1797 the first general law was passed, which contained a penalty of twenty-five dollars for practising without license. Since that period the penalty has varied, from time to time, until the act of 1835 repealed all penalties, leaving only the provision against the recovery of debt by suits. The effect of repealing this provision would be to admit all pretenders, of whatever description, to the same professional privileges as those who qualify themselves in conformity to present regulations. This, instead of carrying out the doctrine of equal rights and privileges contended for, would, in its effect, be very unequal, if it is supposed the law, without this or some similar provision, would have any binding force; for, while those who legally enter the profession would be required to devote years in qualifying themselves, and to submit to the ordeal of an examination, others, without being compelled to devote either time, study or expense, in preparing themselves, would be permitted to practise without penalty, and would possess the same legal remedy for enforcing payment for their services. Indeed, it appears to your committee, that the repeal of this provision would be, in effect, the repeal of all law regulating the practice of physic and surgery, so far as relates to qualifications; for the legal right to enforce payment would imply the right to practise, and it would be very much a matter of choice, and depend upon circumstances, whether men would take the legal steps to enter the profession, or some shorter and less expensive method.

The law regulating the term of study and qualifications of candidates for medical license, without some sanctions calculated to secure compliance with its provisions, would remain upon our statute book a dead letter. It might be regarded as an indication of the opinion of the legislature, but would have no more binding effect than regulations adopted by voluntary associations, and therefore had, perhaps, better be repealed; for, should the prayer of the petitioners be granted, it appears to your committee that it would be equivalent to a legislative decision that no particular term of study or test of qualification ought to be established by law.

Although medical science does not depend upon the arm of the law for its encouragement and progressive improvement, but is sustained and impelled forward by a higher and more noble impulse, yet it cannot be doubted that legal regulations have contributed largely to its more general diffusion among the profession, and, consequently, the more extended advantages of its application, and hence should be regarded as a public benefit, important to the welfare of the people. Your committee have, therefore, come to the conclusion to recommend the adoption of the following resolution:

Resolved, That the prayer of the petitioners ought not to be granted.

DR. MOTT AT EPIDAURUS.

[The following remarks on a visit to the site of the Temple of Æsculapius are rich in many respects. They at least exhibit rare enthusiasm, inspired by the god of physic; and manifested in a novel manner.—Ed.]

We arrived in this celebrated valley in the latter part of the afternoon, after a somewhat fatiguing journey from Napoli. It is by no means exten-

sive, but a deep and picturesque ravine, as it were, between the mountains. Our feelings at arriving on this consecrated ground were peculiar and delightful, and such as cannot be well appreciated by any but a medical man. We eagerly sought out what may be supposed to have been the ruins of the Temple of the God of healing Art, dedicated to that deity, and built, it is believed, over the spot in this valley which he is related to have been born. We found in several places confused heaps of ruins, which however were not sufficiently defined to say positively to what character of edifice they belonged, or whether they were a part of the temple or of the ancient city of Epidaurus.

Desirous of rendering proper homage to our great tutelary divinity, we examined carefully every group of ruins, in order that we might be sure of doing justice to the great object of our visit, and, after inspecting them all with the hope that we might discover some fragment of the shrine upon which the votive offerings were placed, or one of those tablets upon which, it is said, the cures of the great physician were inscribed, and which might enable us to identify the actual locale of the temple and its altar. We gave up the search in despair; and concluded to select the great amphitheatre as the most suitable spot for the performance of the ceremonial we contemplated; and accordingly prepared the necessary material for commencing operations.

This immense theatre, incredible as it may seem, would accommodate within its enclosure, I should imagine at least 30,000 persons. It is on the steep side, as usual on the hills, and seemed to us from its imposing grandeur and remarkable preservation, to be an appropriate place for our intended oblation to the God Esculapius.

Let us stop for a moment to say a few words of this wonderful ruin. With the exception of that of Tramezas in Greece, and the Coliseum in Rome, and that of Nismes in France, it is not only the largest, but the most perfectly preserved edifice of the kind existing anywhere; and it would seem, from the extraordinary width of the seats, being twice that of any other we had visited, that it was admirably adapted, if not specially designed, for the comfort of invalids who probably resorted thither not only for the agreeable recreation of witnessing theatrical amusements and feats of gladiatorship, but also for medical treatment and advice under the renowned father of medicine in person. The poor as well as the rich, the lowly and the proud, the titled prince and the commoner of the land, irresistibly attracted by his fame and his great deeds, especially as the surgeon both of Jason and Agamemnon, flocked hither from all parts of the Continent, and even from Asia Minor, Egypt and Rome, and the distant Islands, to avail themselves of the consummate skill of the great master, who here, no doubt, within these noble walls, often personally officiated in his sacred rites and mysteries, and established, and held, and immortalised by his triumphant success, before tens of thousands of enraptured spectators, the first great clinique and cencours of our healing art.

The consciousness that I might possibly be standing on the very spot once consecrated by the presence of the great father of medicine, and where he delivered his oracles to adoring multitudes, and that I too, perhaps who might say, without egotism, that I had done the "medical state some service," was probably the only American surgeon who had ever visited this hallowed place, and that my voice, as once the commanding tones and inspired discourses of my great predecessor were, was now heard in its echoes through the same mountain ravine, produced together thrilling emotions of delight and trains of vivid thoughts, that language could but poorly pourtray.

It must be admitted, from historic evidence furnished by Homer and others of the siege of Troy, that even anterior to that remote period, both Esculapius and his two sons had unquestionably greatly distinguished themselves by remarkable cures in medicine or surgery, especially in the latter, to have attained a reputation so brilliant and extended as was that of these three

famous Greeks. What they did probably within this beautiful valley, or within the enclosure of this magnificent amphitheatre, and in various other places, was no doubt as great for those days as have been for our times the exploits of professional men among the moderns.

As a traveller and humble representative of my profession from a new world, a *terra incognita* to him who has rendered this spot so illustrious and enduring in renown, I felt it my duty to make a propitiary sacrifice to his revered memory and name, and to his wide spread reputation as the ruling deity of our invaluable art. Having directed my servant, before leaving Napoli, to provide for me one of the tutelary emblems of Esculapius, the barnyard cock, of glossy black plumage, I now assembled my companions in the arena of the theatre to listen to a Grecian clinique by an American surgeon, and to witness the performance of a surgical operation which, I may venture to say, never before had been performed in this ancient land, even by Esculapius himself or either of his gifted sons. The victim designated for this honourable sacrifice having been transported from Napoli on one of the baggage horses, I requested my servant to introduce him into the arena. After a suitable exordium, setting forth the nature and gravity of the case, the solemnity and sacredness of the place, and the difficulty and importance of the operation about to be performed, I commenced, scalpel in hand, previously and properly denuding the neck of the feathers, to lay bare the common carotid artery of one side, the patient being firmly held upon one of the seats of the theatre, now again after a lapse of 3000 years, to be devoted to anatomical and surgical uses. With the able assistance of my excellent friend and companion, Dr. Jackson, of New York, after having laid bare the important vessel, and with proper caution separated it from the deep jugular vein and par vagum, I introduced carefully underneath it, by means of a curved eyed probe, a silk ligature, and then tied the artery. After waiting a few moments, and finding that the animal, so far from experiencing any inconvenience from this modern and dangerous operation, submitted to it with a grace and heroic resolution befitting the distinguished honour conferred upon him, we concluded, upon consultation, to tie the carotid of the other side, which was also done in a similar manner. I remarked to the pupils present at this Greco-chirurgical clinique, that this was the *twentieth time* I had tied this important vessel, having performed it *nineteen* times on the living human subject in my native country. It is a coincidence not improper, perhaps, to mention, that shortly before leaving my own country the last time I tied the carotid with success on a young man who, about a year before, had the same artery tied on the other side, making perhaps the second remarkable instance of a human being recovering after both these arteries had been successfully secured.

Though we found our feathered patient, also had apparently sustained no serious injury, we deemed it suitable to the occasion to make a further and more solemn sacrifice by dividing the spinal marrow of the intrepid chanticleer, and thereby terminating his martyrdom, and giving a brilliant finale to our ceremonies by offering up his whole life to the god of physic. The body was then transferred to one of the baggage-horses and carried with us to Athens, where we arrived two days after. And to complete the funereal rites, we there devoted his remains to the cause of gastronomy, by having them served up to us in an excellent supper under the walls of the Parthenon; flattering ourselves at the same time with the consoling idea, that among the gorgeous array of canonised deities, heroes, kings, generals, orators, and poets whose statues once adorned every summit and quarter of this proud city, she who was the tutelary goddess of Athens, Minerva, the protectress of Science, and especially that form of this deity called *Minerva-Hygeica*, so named after a daughter of Esculapius, was looking down from the Acropolis with smiling approbation at this convivial result of our labours in honour of her renowned father. The last finishing stroke was to secure from the wreck of the victim as *os hyoides*, commonly called the *merry-thought*, for my museum in America.

University of Pennsylvania.—Medical Department.—The Medical class of this Institution numbered, during the last session, 363 matriculates.

At a Public Commencement held the 26th day of March, 1842, the following gentlemen received the degree of Doctor of Medicine.

NAME.	RESID.	SUB. OF ESSAY.
Anderson, J. Q.	N. C.	Cynanche Trachealis.
Anderson, T. J.	Ala.	On Hygiene.
Ashton, Henry	Va.	Intermittting Fever.
Banister, Monro	Va.	Puerperal Fever.
Banks, W. H.	N. C.	Puerperal Peritonitis.
Batte, W. H.	Va.	Dysentery.
Baxter, Oscar F.	N. C.	Parturition.
Blaney, J. V. Z.	Del.	The Inv. of the Veg. Mat. Med.
Brakeley, P. P.	N. J.	Anasarca.
Brinson, W. A.	Ga.	Congestive Fever of the South.
Brown, Walter A.	Va.	Cynanche Trachealis.
Bryan, Jesse G.	N. C.	Dysentery.
Budd, Andrews E.	N. J.	Prolapsus Uteri.
Burtt, John L.	Ohio.	Dietetics.
Cage, Edward R.	Tenn.	Cholera Infantum.
Chamberlaine, S.	Md.	Urethral Stricture.
Christian, P. H.	Va.	Disease of Kidney.
Clements, W. W.	N. C.	Intermittent Fever.
Conrad, Daniel	Va.	Acute Gastritis.
Cook, Lewis C.	N. J.	Reproduction.
Cornick, W. T.	Va.	Scarlatina. [rhages.
Crudup, E. A.	N. C.	Spontaneous Hæmor-
Currie, Shelby	N. C.	Dyspepsia.
Dailey, R. W.	Va.	Amenorrhœa.
Davis, W. W.	N. C.	Acute Gastritis.
Dennis, George	Md.	Typhus Fever.
Dickey, Robert	N. Scotia,	Acute Peritonitis.
Dickinson, J.	Tenn.	Delirium Tremens.
Dozier, J. A.	Ala.	Hydrocele.
Edgar, S. M.	Tenn.	Gunshot Wounds.
Egan, John F.	St. Croix,	Blood.
Gravatt, J. J.	Va.	Scarlatina.
Graves, A. W.	Va.	Hæmatemesis.
Green, J. W.	Va.	Fractures.
Greenbank, R. M.	Phil.	Autumnal Fever of Q. Anne Co.
Gwathmey, W. H.	Va.	Bilious Rem't Fever.
Hammett, G. A.	R. I.	Akenesic Power.
Hawkins, W. J.	N. C.	Indigestion.
Heard, Joseph M.	Ala.	Depletion.
Henkel, S. P. C.	Va.	Aneurism.
Henry, E. W.	Md.	Cholera Infantum.
Hilsman, J.	Ga.	Gonorrhœa.
Hogan, James	Mo.	Prolapsus Uteri.
Hollingsworth, S. L.	Phil.	Iritis. [Blood.
Hood, James M.	Ky.	Circulation of the
Hotchkiss, J. T.	Pa.	Rubeola.
Hunter, J. A.	Va.	Theory of Menstruation and Amenorrhœa.
Hutchinson, M. P.	Pa.	Prolapsus Uteri.
Johnes, Theodore	N. J.	Hydrophobia.
Jones, Josiah N.	Va.	Intermittent Fever.
Kane, Elisha K.	Phil.	Kiesteine.
Kennon, Richard	Va.	Means of easing the pains of Parturition.
Little, R. Parker	Pa.	Tetanus. [chylosis.
Littlefield, E. B.	Tenn.	Deformity from An-
Logan, John D.	Pa.	Arthritis.
Macnair, A. H.	N. C.	Menstruation.
Magrudor, A. L. C.	Miss.	Congestive Fever of Mississippi.
Manry, Josiah	Va.	Acute Gastritis.
Martin, Franklin B.	Pa.	Pleuritis.
Mason, John K.	N. Y.	Scrofula.
Meade, David E.	Va.	Emotional Tears.
Mettert, John H.	Va.	Leucorrhœa.
Miller, Lewis A.	Va.	Scarlatina.
Mitchell, Henry H.	Md.	Cholera Infantum.
Montgomery, H. F.	N. Y.	Dislocation of the Os Humeri.
M'Farland, J. P.	Tenn.	Fungus Hæmatodes.
M'Nairy, W. S.	Tenn.	Intermittent Fever.
Old, Hollowell	Va.	Peritonitis Puerperalis.
Page, Mann A.	Va.	Scarlatina.
Palmer, W. P.	Va.	Irritable Uterus.
Peete, John S.	Tenn.	De Febre Biliosa Remittente.
Pennypacker, M. J.	Penn.	Respiration and Animal Heat.
Phillips, James W.	Tenn.	Idiosynerasy.
Postlethwaite, J.	La.	Fever.
Pritchett, E. H.	Va.	Metritis.
Purnell, G. W.	Md.	Icterus.
Ray, Duncan W.	S. C.	Forensic Medicine.
Reid, James M.	Ky.	Scarlatina.
Revely, Thomas C.	Va.	Neuralgia.
Rider, William G.	Md.	Tenotomy.
Robinson, Moore	Va.	Pathology and Symptoms of Pneumonia.
Roper, William W.	Va.	Amenorrhœa.
Saulsbury, Gove	Del.	Rheumatism.
Scholl, Griffith, J.	Pa.	Phlegmasia Dolens.
Shoemaker, Edwin	Pa.	Acute Gastritis.
Shove, George	Mass.	Therapeutics.
Steele, Robert J.	N. C.	Phthisis. [West.
Stevens, R. H.	Mo.	Milk-sickness of the
Strother, William	Va.	Dyspepsia.
Taliaferro, B. F.	Tenn.	Hydrocephalus.
Tannor, John G.	Va.	Acute Gastritis.
Taylor, Thomas B.	Flo'a.	Spermorrhoea.
Todd, William	Ky.	Inflammation.
Tompkins, F. O.	Va.	Menstruation.
Towles, Thomas	La.	Scarlatina.
Trippe, Jesse E.	Ala	Acute Gastritis.
Tunstall, Robert B.	Va.	Delirium Tremens.
Tyler, Samuel	Md.	De Puerperali Peritonite.
Waddell, James A.	Va.	Iodine.
Walker, John B.	Mass.	Hydrocele.
Walton, Richard P.	Va.	Arsenic.
Ward, Edward H.	Phil.	Amaurosis.
West, Francis	Va.	Iron.
Wharton, Albert C.	N. C.	The Revulsive action of medicine.
White, John F.	Va.	Prolapsus Uteri.
Woodland, T. W.	Md.	Dyspepsia.
Wright, John J.	Va.	Fractures.
Yancey, Henry	N. C.	Emetics.
Young, Thomas H.	Miss.	Aneurism.

At the Commencement in the Arts, held in July, 1841, the following gentlemen received the degree of Doctor of Medicine.

L. N. Burge,	Ga.	Conception.
Joan T. Clarke,	Pa.	Gonorrhoea.
M. P. Linton,	Pa.	The Seven Eras of Women.
John Miller,	Pa.	Intermittent Fever.
W. M. Thompson,	Va.	Acute Gastritis.